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## REMARKS/ARGUMENTS

### Introduction

In the Office Action dated November 20, 2003, the Examiner alleged that the provisional application fails to provide adequate support for the claims of the present application, and does not recognize the claim for domestic priority under 35 U.S.C. 119(e). The Office Action also indicated that claims 1-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application 2003/0088876 ("*Mao*") in view of U.S. Patent Application 2002/0016969 ("*Kimble*").

In order to more effectively traverse the objections of the Examiner, Applicant submits support in the provisional application for the claims as amended in this response, specifically, amended claim 1, claims 2- 15, 17, and amended claim 18. Any reference to a page number indicated below generally refers to the page number of the "Session Setup Protocol" specification contained in the provisional application. This protocol specification is written by and for one skilled in the art of cable systems, so that it may be considered as meeting the statutory enablement requirement of 35 U.S.C. §112.

By demonstrating support of the claims in the provisional application having a filing date of January 22, 2001, the claims of the present invention are entitled to this as the effective date. Since the *Mao* reference was filed after this date, namely on Nov. 8, 2001, the *Mao* reference is not prior art and cannot be combined with the *Kimble* reference to form a 35 U.S.C. §103 rejection.

### Analysis

The claims are presented with amendments illustrated.

1. Claim 1: Support is provided for amended claim 1 which is provided below:

A method of implementing a service in a cable system, comprising:

~~receiving~~ generating at a set-top box (STB) application level data ~~generated by a service,~~  
where said application level data represents a service offering comprising:

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service data identifying particular ~~services within~~ resources associated with the service offering, and

routing data identifying the location of said ~~service~~ particular resources in said cable system;

identifying at least one of said particular ~~service~~ resources within said service offering; and

generating a session request to receive the service offering identified at least one ~~particular service~~, wherein said session request includes said routing data.

1.1 "Service in a cable system": the protocol is directed to "an application in the receiver attached to a cable system to establish, use, and dissolve an interactive session." (Page 1, top). The service is designed "to fulfill the following requirements for support of Video on Demand in a cable system." (Page 6, top).

1.2 "generating at a set top box (STB) application level data": according to Annex B (Page B-1), the "Client" is illustrated as sending the "ClientSessionSetUpRequest" message. The "Client" is defined (page 9, first paragraph) as the "set top" [box]. Further, the "ClientSessionSetUpRequest" message contains the "ApplicationRequestData descriptor" (Section 8.1, third paragraph, page 28.) The format of the "ApplicationRequestData descriptor" is shown in section 8.1.6 (page 30 -31) as containing ApplicationRequest Data which is "application specific data."

1.3 "where said application level data represents a service offering comprising" As stated in Section 1.1, the purpose of the document is to allow an application to establish an interaction session. Such interactive sessions are "MOD" (movies on demand), typically delivered in a digital MPEG format (see, e.g., table 12 on page 24).

1.4 "service data identifying particular resources associated with the service offering": the message "ClientSessionSetUpRequest" includes the "UserData" element (Page B-1, section

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B.1.2). The UserData element contains "user private data" as defined in section 8 (page 25). As shown by the table on page 26, the UUData elements contains "Service Data" (middle of page).

1.5 "routing data identifying the location of said resource associated with said service offering": the message "ClientSessionSetupRequest" message is disclosed as containing the "AssetID" (page B-1, bottom). The AssetID is disclosed in Section 8.1.2 as identifying an asset (e.g., movie) by the VOD (video on demand) server.

1.6 "generating a session request to receive the service offering wherein said session request includes said routing data" The message "ClientSessionSetupRequest" is disclosed on page B-1 as being generated from the client (Set Top Box). Section 8.1 (2<sup>nd</sup> paragraph) indicates that the server creates a stream (e.g., video stream) and a reference to that stream known as a "StreamHandle," which is returned in the ServerSessionSetupResponse message.

2. The method of claim 1, further comprising transmitting said session request to said service, wherein said service is located at a headend of the cable system. The figure on page B-1 illustrates transmitting the session request (ClientSessionSetupRequest) to the session resource manager (SRM) and onto the server, where the service resides. It is well known in the art that services in a cable system are provided in the 'headend'. As stated in the "Invention Disclosure Form" preceding the specification in the provisional application, the "server session manager [is] in the headend." (Background section).

3. The method of claim 2, further comprising parsing said session request at said service to extract the identified at least one particular service. The last paragraph on page 24 states that "The SRM shall examine the list of proposed resources and attempt to allocate in order starting with the most desirable set of descriptor field first going to the least desirable values last." The description of examining fields in the messages is described by the term parsed "parsed" and the resources are associated with services (see Table 12, page 24 for types of resource descriptors, including "MPEG Program", which describes a particular number of a video program). See also

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third paragraph in section 8.1 where it states that the server "shall be able to correctly parse user data containing any valid descriptor... ."

4. The method of claim 3, further comprising determining the location of the identified at least one particular service in said cable system. One of the user defined resource descriptors that can be conveyed (see section 7.4, page 19) is the "HeadEnd Resource Descriptor" disclosed in section 7.4.2 (page 21) which "shall be used to specify the Head End and/or Transport Stream for distribution of a session .... The descriptor is intended to provide the Server with the ability to select the point(s) of distribution to the access network for a session... ."

5. The method of claim 1 wherein said routing data further identifies the location of a session gateway in said cable system. The User Private Data element that is conveyed in the ClientSessionSetUpRequest message as disclosed in Section 8 (page 25, last paragraph). Further, these "messages are sent to the SRM and include the NSAP address of an ISA Session Gateway." (Page 26, middle of page.)

6. The method of claim 1, wherein generating a session request comprises generating a session request at a generic session manager of the STB to receive the identified at least one particular service, wherein said session request includes said routing data and said service data. Table 12 (page 24) indicates some of the Resource Descriptors from the client (Set Top Box - STB) view. Two descriptors are "TSDownStreamBandwidth" and "MPEGProgram" which allow the client to indicate various type of programs at different bandwidth (e.g., high definition resolution or regular resolution). This would be one instance of the STB acting as a 'generic session manager of the STB.' After requesting the session and "[u]pon successful setup of a session, the server shall create a stream and a reference to that stream know as the StreamHandle. The StreamHandle shall be returned in the user data portion of the Server SessionSetupResponse as defined in this specification." (Page 28, section 8.1, second paragraph). Also, table 12 indicates that the Resource Descriptor also includes an IP address.

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7. **A system for administering a session in a cable system, comprising:**  
**a service residing in said cable system;**  
**at least one set-top box, wherein the at least one set-box is in communication with**  
**said service and generates a request to the service; and**  
**wherein said request comprises routing information identifying the location of said**  
**service and session data identifying a particular service requested.**

7.1 **“A system for administering a session in a cable system”** See section 1.1 (page 1) indicating the document allows an “application in the receiver attached to a cable system to establish, use, and dissolve an interactive session.”

7.2 **“a service residing in said cable system”** The data pertains to establishing a MPEG video stream for a MOD (movie on demand) service.

7.3 **“at least one set-top box, wherein the at least one set-box is in communication with said service and generates a request to the service”** The diagram on page B-1 illustrates a client (set top box; see page 9, second paragraph) that generates the ClientSessionSetUpRequest message. This message is generated by the client to establish a session.

7.4 **“wherein said request comprises routing information identifying the location of said service and session data identifying a particular service requested”** The message “ClientSessionSetUpRequest” message is disclosed as containing the “AssetID” (page B-1, bottom). The AssetID is disclosed in Section 8.1.2 as identifying an asset (e.g., movie) by the VOD (video on demand) server. Further, the message “ClientSessionSetUpRequest” is disclosed on page B-1 as being generated from the client (Set Top Box). Section 8.1 (2<sup>nd</sup> paragraph) indicates that the server creates a stream (e.g., video stream) and a reference to that stream known as a “StreamHandle” which is returned in the ServerSessionSetupResponse message.

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8. The system of claim 7, wherein the at least one set-top box comprises a generic session manager, and wherein said generic session manager generates said request. Table 12 (page 24) indicates some of the Resource Descriptors from the client (Set Top Box - STB) view. Two descriptors are "TSDownStreamBandwidth" and "MPEGProgram" which allow the client to indicate various type of programs at different bandwidth (e.g., high definition resolution or regular resolution). This would be one instance of the STB acting as a 'generic session manager of the STB.'

9. The system of claim 7, further comprising at least one server located at a headend of the cable system and in communication with said service. Section 7.5 (pages 23-25) discloses a server (in the cable headend) communicating service related parameters (e.g., which resources to use for a session).

10. The system of claim 9, wherein the at least one server comprises a session manager, and wherein the service communicates with said session manager to identify the particular service requested. Section 7.5 (pages 23-25) discloses the server communicating with a session resource manager (SRM) to ensure that sufficient resources are available for the session.

11. The system of claim 9, wherein the at least one server comprises a session manager, and wherein said session manager communicates with said cable system to establish a communication path through which to implement said service. Section 7.3.1 (page 17, second paragraph) discusses using the "downstream transport ID," which in the "SRM perspective represents input to the network and is used to identify the first network element in the chain of network elements that lead to the access network." "This information allows the SRM [system resource manager] to assure that all network elements from the point of entry to the network to the QAM are configured to carry the session content."

12. The system of claim 7, further comprising a session resource manager, wherein the session resource manager identifies available resources of said cable system. Section 7.3.1

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(page 17, second paragraph) discusses using the "downstream transport ID," which in the "SRM perspective represents input to the network and is used to identify the first network element in the chain of network elements that lead to the access network." "This information allows the SRM [system resource manager] to assure that all network elements from the point of entry to the network to the QAM are configured to carry the session content."

13. The system of claim 7, further comprising at least one session gateway in communication with said set-top box and said service, wherein said request comprises routing information identifying the at least one session gateway. As disclosed by the line diagram on page B-1, the client (set top box) is in communication with the Session Resource Manager (SRM), and the Session Resource Manager is also in contact with the Server. The ClientSessionSetUpRequest message contents are disclosed on page B-1 in Section B.1.2. One field contained in the message is the "UserData" field and in Section 7.1.1 (page 10) the contents of the messages are disclosed. On page 11, the "UserData" field is disclosed as containing UUData which "is used to support addressing and distribution of the ... components."

14. The system of claim 13, further comprising at least one service gateway in communication with said at least one session gateway, and wherein said request further comprises routing information identifying the at least one service gateway. There is a table starting at the bottom of page 26 and continuing onto page 27 identifying three levels of addressing information associated with the Session Gateway, Service Gateway, and Service respectively.

15. A method of fulfilling a session request in a cable system, comprising:  
receiving a session request at a service, wherein said session request identifies the location of said service in said cable system and the generator of said session request;  
parsing said session request to identify at least one particular service identified within said session request; and

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**forwarding said at least one particular service identified within said session request to said generator.**

15.1 **"A method of fulfilling a session request in a cable system":** the diagram on page B-1 indicates a client (set top box) communicating with a Session Resource Manager (SRM) to "establish, use, and dissolve an interactive session." (Page 1, section 1.1.)

15.2 **"receiving a session request at a service, wherein said session request identifies the location of said service in said cable system and the generator of said session request"** The figure on page B-1, discloses the Server (providing the service) receiving a "erverSessionSetUpIndication" message. This message (as indicated in Section B.1.3, page B-2) contains the UserData element. As disclosed in Section 7.1.1 (page 11, "UserData"), the "UUData is used to support addressing and distribution of the Pegasus Interactive Services Architecture components." A list of the components and their addressing used in the User Data field is disclosed in section 8 (pages 25-27). The ClientID (page 11) is contained in the session setup message (see, e.g., UserID on page 22) and is an address of the client that generated the session request.

15.3 **"parsing said session request to identify at least one particular service identified within said session request"** Section 8.1 discloses the server creating a stream in response to the request (defines by the descriptors) contained in the User data field. The third paragraph indicates that the "[o]rder of the descriptors in the user data message shall not be constrained. Implementations shall be able to correctly parse user data containing any valid descriptor... ."

15.4 **"forwarding said at least one particular service identified within said session request to said generator."** Section 8.1 discloses the server creating a stream in response to the request (defines by the descriptors) contained in the User data field. The reference to the stream is called a 'StreamHandle' and "shall be returned in the user data portion of the



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ServerSessionsSetupResponse message." The "StreamHandle" identifies the service to the generator (e.g., client).

16. The method of claim 15, further ~~comprising querying at least one service to~~ **determined the location indicating a MPEG program number associated with the one** particular service in said cable system. The specification on page 24 discloses that the resource descriptor may indicate a "MPEGProgram" value associated with the MPEG program number.

17. The method of claim 16 further comprising executing, at said service, an instruction to the determined location to forward said at least one particular service to said generator. Section 8.1 discloses the server creating a stream in response to the request (defines by the descriptors) contained in the User data field. The reference to the stream is called a "StreamHandle" and "shall be returned in the user data portion of the ServerSessionsSetupResponse message." The StreamHandle identifies the service to the generator (e.g., client).

18. A session request generated by a generic session manager within a set-top box, comprising:

session data identifying a particular service ~~identified by a service~~, and  
routing data identifying the location of said service in said cable system.

18.1 "A session request generated by a generic session manager within a set-top box, comprising" Section 1.1 indicates that the specification allows a client (set top box) communicating with a Session Resource Manager (SRM) to "establish, use, and dissolve an interactive session." (Page 1, section 1.1)

18.2 "session data identifying a particular service ~~identified by a service~~" The "ClientSessionSetUpRequest" message includes UserData (Section B.1.2, page B-1), the contents of which are disclosed on page 26 and include ServiceData.

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### CONCLUSION

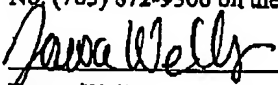
Applicant has demonstrated that support for the above limitations can be found at least as indicate above, and other portions of the provisional application that are not indicated support the claim limitations. Because the claims are entitled to an effective date prior to *Mao*, *Mao* is not prior art and cannot be combined with *Kimble* for producing the 35 U.S.C §103 rejection. Applicant respectfully requests that the claims be placed in a condition for allowance. Should the Examiner believe otherwise or have any questions to be clarified, the Examiner is invited to call the Applicant at (404) 881-4748 to discuss the matter.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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